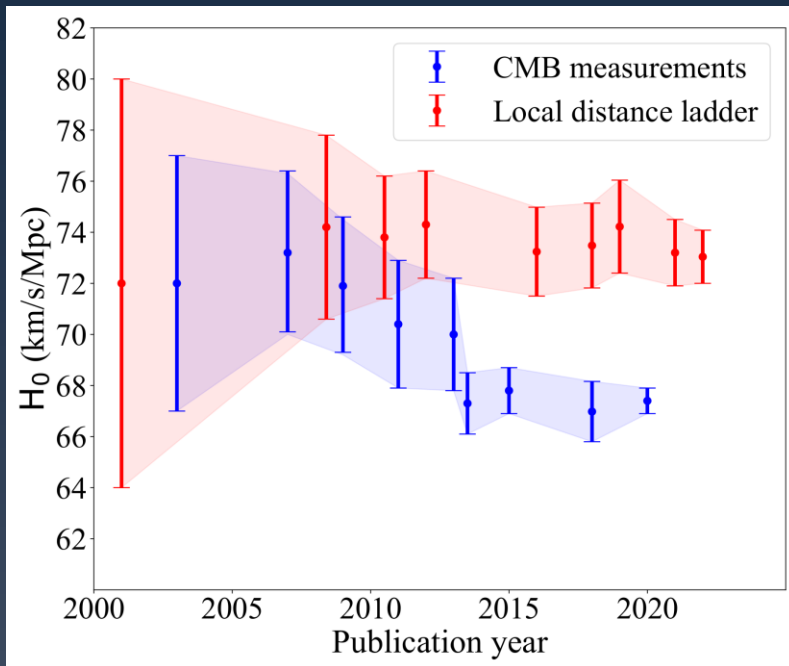


Cosmological Perturbation in a Coupled Quintom Dark Energy Model



Hubble Tension

$$S = \int d^4x \sqrt{-g} \left[\frac{R}{2\kappa^2} - \frac{1}{2}(\partial\phi)^2 + \frac{1}{2}(\partial\sigma)^2 - V(\phi) \right] + S_M(g_{\mu\nu}, \sigma, \psi_M)$$

Quintessence

Phantom

$$\nabla_\mu T_\nu^{\mu(\sigma)} = -\kappa \delta T_M \nabla_\nu \sigma$$

Objective : Derive perturbation equations for the model
and calculate the growth factor (if possible)